

IN THE CLAIMS:

1. (Currently Amended) A glazing panel system providing light transmission therethrough comprising:

a first glazing panel of plastic;

an upstanding seam flange on an end of the glazing panel and being joined at its lower end to the first glazing panel;

a first end on the first glazing panel;

a second glazing panel of plastic;

a first end on the second glazing panel;

an upstanding seam flange being joined at its lower end to the first end of the second glazing panel;

a retention clip being disposed between adjacent first ends of the first and second glazing panels and being adjacent their respective upstanding seam flanges, the retention clip having a portion configured to engage and to retain the adjacent glazing panels under high loads;

an internal connector connected to the glazing panels configured to assist the retention clip in the retention of the glazing panels against separation under high negative loads; and

a second covering connector covering configured to cover the internal connector, the upper portion of the clip and the upstanding seams and being connected to the glazing panels.

2. (Currently Amended) A glazing panel system in accordance with Claim 1 wherein the internal and external connectors are inverted, substantially U-channels in shape.

3. (Original) A glazing panel system in accordance with Claim 2 wherein the glazing panels having first and second spaced tooth surfaces thereon; and

the internal and external connectors have toothed surfaces thereon for engagement with the tooth surfaces on the glazing panels.

4. (Original) A glazing panel system in accordance with Claim 3 wherein the internal and external connectors are flexible to expand over the tooth surfaces and then to contract to interlock with the toothed surfaces on the glazing panels.

5. (Original) A glazing panel system in accordance with Claim 1 wherein the toothed surfaces are spaced from one another in a horizontal direction.

6. (Currently Amended) A glazing panel system in accordance with Claim 1 wherein the internal connector is less flexible than the flexible external connector with respect to retaining the glazing panels together under high negative loads applied to the glazing panels.

7. (Original) A glazing panel in accordance with Claim 1 wherein the external connector has a tighter engagement with the glazing panels to provide waterproof seams covering between adjacent panels than a looser engagement by the internal connector with the upstanding seam flanges.

8. (Currently Amended) A glazing panel in accordance with Claim 7 wherein the internal connector has a predetermined tolerance with respect to the upstanding seam to allow expansion and contraction of the seam flange ~~at higher temperatures~~.

9. (Currently Amended) A glazing panel system in accordance with Claim 7 wherein the external connector is more flexible than internal connectors to allow expansion of the seam flanges with flexing of the ~~connector~~ glazing panels.

10. (Currently Amended) A glazing panel system in accordance with Claim 1 wherein the retention clip engages the glazing panel seam flanges at a position below the top ends of the upstanding seam flanges.

11. (Original) A glazing panel system in accordance with Claim 10 wherein each of the glazing panel has a pair of spaced upstanding seam portions; and

the internal connector is an inverted channel having depending legs positioned between the respective upstanding seam portions.

12. (Currently Amended) A glazing panel system in accordance with Claim 1 wherein the retention clip engages the upstanding glazing panel seam flanges at a position located below a top end on the upstanding seam flanges to provide an improved retention of adjacent glazing panels against separation.

13. (Cancelled)

14. (Currently Amended) A glazing panel system providing light transmission therethrough comprising:

a first glazing panel of plastic;

a pair of inner and outer upstanding seam flanges on an end of the glazing panel and each of the pair being joined ~~at its respective lower end~~ to the first glazing panel;

a first end on the first glazing panel;

a second glazing panel of plastic;

a first end on the second glazing panel;

a pair of inner and outer upstanding seam flanges, each of the pair being joined respectively at its respective lower end to the first end of the second glazing panel and projecting upwardly to a top end thereon;

a retention clip being disposed between adjacent first ends of the first and second glazing panels and being adjacent their respective upstanding seam flanges;

a base on the retention clip for being secured to a support member for the glazing panels;

a web portion on the clip extending upwardly from the clip base and extending between the adjacent first ends of the first and second glazing panels;

a seam covering member covering a seam between adjacent seam flanges; and

a portion on the retention clip extending transversely from the clip web and spaced upwardly of the clip base and for engaging the respective inner seam flanges of the first and second glazing panels at locations lower than upper-the top ends of the outer upstanding seam flanges ~~for~~ when resisting uplift loads.

15. (Currently Amended) A glazing panel system in accordance with Claim 14 comprising:

an internal connector connected to the seam flanges and covered by the ~~inner~~ seam covering member.

Claims 16-28. (Cancelled)

29. (Original) A glazing panel system in accordance with Claim 14 wherein the retention clip is made of extruded metal.

30. (Original) A glazing panel system in accordance with Claim 14 wherein the retention clip is formed of a bent piece of sheet metal.

Claims 31-43. (Cancelled)

44. (Currently Amended) An extruded, modular, light transmitting plastic architectural panel comprising:

two outer major surfaces located on opposite sides of the architectural panel; a first end on the panel having an end wall;

a pair of inner and outer upstanding seam flanges at the first end of the glazing panels for being interconnected with a pair of inner and outer seam flange of another extruded plastic panel;

clip engaging portions on the panel for engaging a retention clip to hold the panel against separation from another panel;

first interlocks on the upstanding inner seam flanges configured to interlock for interlocking with a first internal connector; and

second interlocks on the upstanding outer seam flanges facing away from the vertical end wall are configured to interlock for interlocking with an external connector superimposed over the internal connector.

45. (Currently Amended) An architectural glazing panel in accordance with Claim 44 wherein the first and second interlocks comprise:

stepped surfaces on each of the upstanding seam flanges positioned at spaced locations to interlock with stepped surfaces on the first and second connector; and

the stepped surfaces on the first interlocks for the internal connector being located at a height different than the stepped surfaces for the second interlocks for the external connector.

46. (Original) A glazing panel and retention clip in accordance with Claim 45 in which the stepped surfaces are positioned at horizontal spaced locations relative to an adjacent end of the glazing panel.

Claims 47-72 (Cancelled)

73. (Original) A glazing panel in accordance with Claim 44 wherein the panel is made of extruded polycarbonate plastic.

74. (Previously Amended) A glazing panel system in accordance with Claim 1 wherein each of the panels is made of extruded polycarbonate plastic.

75. (New) A glazing panel system in accordance with Claim 1 wherein the retention clip comprises a laterally extending flange configured to retain the glazing panels.

76. (New) A glazing panel system in accordance with Claim 1 wherein each of the glazing panels has a second upstanding seam flange in engagement with the retention clip.

77. (New) A glazing panel system in accordance with Claim 1 wherein the retention clip engages the glazing panels at a location lower than the connection of the internal connector and the covering connector.

78. (New) The glazing panel system of Claim 1 wherein the internal connector is superimposed over the clip and applies substantial retention force to the seam flanges.

79. (New) The glazing panel system of Claim 78 comprising:
a top flange on the clip extending over upper ends of the upstanding seam flanges; and
the internal connector being configured to cover the top flange of the clip.

80. (New) A glazing panel system in accordance with Claim 1 comprising:
first and second upstanding seam flanges each joined at its lower end to the first end to each of the first and second glazing panels; and
the internal connector being connected to the first upstanding seam flange and the second covering connector being connected to the second seam flanges.

81. (New) A glazing panel system in accordance with Claim 80 wherein the internal connector is superimposed over the clip and first upstanding seam flanges and the second covering connector is superimposed over the internal connector and the first and second upstanding seam flanges.

82. (New) A glazing panel system in accordance with Claim 80 comprising:
the clip engaging the first seam flanges at a location lower than a top surface of
the second upstanding seam flange to lower a hinge point between the first and second
glazing panels.

83. (New) A glazing panel system in accordance with Claim 80 comprising:
each of the glazing panels having a top sheet surface; and
the clip configured to engage the first seam flanges adjacent the respective top
sheet surfaces to lower a hinge point between adjacent glazing panels.

84. (New) A glazing panel system in accordance with Claim 1 wherein the
external connector is made of plastic and the internal connector is made of metal, the internal
connector being stronger than the external connector to provide strength against panel
hinging and the outer connector providing a weather-proof covering over the internal
connector, clip and seam between the glazing panels.

85. (New) A glazing panel system in accordance with Claim 14 comprising:
an internal connector connected to the pair of inner seam flanges and
configured to assist the clip in the retention of the glazing panels and being superimposed

over the clip, the seam covering member superimposed over the internal connector, the clip and a seam between the panels.

86. (New) A glazing panel system in accordance with Claim 15 wherein the inner upstanding seam flanges have a top surface which is located lower than a top surface on the outer seam flange.

87. (New) A glazing panel system in accordance with Claim 15 wherein the internal connector is made of metal and the seam covering member is made of plastic; the internal connector being stronger than the seam covering member for resisting uplift loads trying to pivot the glazing panels about a hinge point.

88. (New) A glazing panel in accordance with Claim 44 wherein the first interlock for connection to the internal connector are at a height lower than the height of the second interlock for the external connector.

89. (New) A glazing panel in accordance with Claim 44 comprising:
a clip engaging surface on the upper portion of the internal upstanding seam flange configured to engage the clip at a location lower than a top of the outer upstanding seam flange to lower a hinge point for the glazing panel and the clip.

90. (New) A glazing panel system providing light transmission therethrough comprising:

a first glazing panel of plastic;

first and second upstanding seam flanges on an end of the glazing panel and being joined at the respective lower ends to the first glazing panel;

a first end on the first glazing panel;

a second glazing panel of plastic;

a first end on the second glazing panel;

first and second seam flanges joined at their respective lower end to the second glazing panel;

a retainer clip disposed between the first ends of the respective glazing panels and to apply a retention force to retain the glazing panels against uplift load;

an internal channel connector having an inverted U-shape superimposed over the clip and configured to engage the first upstanding seam flanges and to retain the glazing panels against uplift loads; and

external channel connector having an inverted, substantially U-shape superimposed over the clip and the internal channel connector and disposed in engagement with the second upstanding seam flanges on the respective glazing panels and covering the clip, the internal channel connector and a seam between the connected glazing panels.

91. (New) A glazing panel system in accordance with Claim 90 wherein the internal connector is made of metal and is stronger in its resistance to uplift loads than the external connector.

92. (New) A glazing panel system in accordance with Claim 90 wherein the first upstanding seam flanges have a lower height than the second upstanding seam flanges.

93. (New) A glazing panel system in accordance with Claim 90 wherein the clip engages the first upstanding seam flanges at locations lower than the upper ends of the second upstanding seam flanges to lower a hinging point between adjacent glazing panels.

94. (New) An extruded, modular, light transmitting plastic architectural panel comprising:

an architectural glazing panel of plastic having a body;

upper and lower major sheet surfaces located on opposite sides of the body of the architectural glazing panel;

a first end on the architectural panel;

a pair of inner and outer upstanding seam flanges at the first end of the glazing panel for being interconnected with a pair of inner and outer seam flange of another plastic panel;

clip engaging portions on the glazing panel for engaging a retention clip to hold the panel against separation from another panel;

inner upstanding seam flange having a shorter height than the height of the upstanding outer seam flange;

interlocks on the shorter upstanding inner seam flanges configured to interlock with an internal connector to resist uplift loads; and

interlocks on the taller, upstanding seam flange configured to interlock with an external connector for covering the clip, the internal connector and seam between a pair of adjacent glazing panels.

95. (New) A glazing panel system in accordance with Claim 1 wherein the internal connector is stronger than the external connector with its primary function being to provide strength against hinging and glazing panel separation at high loads; and

the external connector is more flexible than the internal connector with its primary function being to provide a weather-proof covering over the internal connector, the clip and the seam between the glazing panels.